

**REMARKS**

The above Amendments and these Remarks are in reply to the Office Action mailed 20 December 2006.

Claims 1-30 were pending in the Application prior to the outstanding Office Action. In the Office Action, the Examiner allowed claims 17-30, rejected claims 1, 2, 4-16, objected to claim 6 for incorrect dependency, and objected to claim 3 solely as being dependent upon a rejected base claim. The present Response cancels claim 5 and amends claims 1, 3, 4 and 7, leaving for the Examiner's present consideration claims 1-4 and 6-30. Reconsideration of the rejections is requested.

**I. RESPONSE TO REJECTIONS****A. Objected Claim 6**

The Examiner objected to claim 6 because there was no antecedent support for "said first taper section" in claim 6.

Parent claim 1 has now been amended to recite the term "first taper section". By inserting this language into claim 1, Applicants do not intend to surrender any subject matter other than that literally excluded by the insertion.

Accordingly, it is believed that proper antecedent support now exists for the term, and that the objection to claim 6 has been overcome.

**B. Rejected Claims 1, 2, 4, 8-10 and 12**

The Examiner has rejected claims 1, 2, 4, 8-10 and 12 under 35 U.S.C. §102(e) as being anticipated by Kawano (US 6,270,261). Applicants will discuss independent claim 1 first, followed by the dependent claims.

**1. Independent Claim 1**

Kawano teaches first and second optical waveguides 5a and 5b, separated longitudinally by an optical isolator 2. The purpose of the isolator in Kawano is to reduce the backward transmission of light, back into the semiconductor laser diode chip 1.

Kawano's isolator 2 comprises a Faraday rotator 2a and *polarizing* elements 2b on both sides of the Faraday rotator.

Applicants' claim 1, on the other hand, has been amended to recite,  
wherein said isolator element comprises at least one Faraday rotator layer interposed between birefringent layers.

Kawano does not teach the use of an isolator in his structure which comprises Faraday rotator layer interposed between *birefringent layers*.

In the Office action, the Examiner says that "The Kawano isolator element 2 comprises a Faraday rotator layer interposed between birefringent (polarizing) layers - see column 3, lines 66-67." But as mentioned, the cited language of Kawano teaches *polarizing* layers, not *birefringent* layers. The two are fundamentally different: whereas a polarizing layer blocks light not having a correct polarization, a birefringent layer merely separates light of differing polarization into different beams. The isolator element called for in Applicants' claim 1 therefore operates on a very different principle than that the one used in Kawano.

Accordingly, it is respectfully submitted that independent claim 1 should be patentable. Applicants note that by inserting the above language into claim 1, Applicants do not intend to surrender any subject matter other than that literally excluded by the insertion.

## 2. Dependent Claims 2, 4, 8-10 and 12

The Examiner rejected claims 2, 4, 8-10 and 12 as being anticipated by Kawano.

Claims 2, 4, 8-10 and 12 all depend ultimately from independent claim 1 and therefore are believed to be patentable for at least the reasons set forth above with respect to independent claim 1. In addition, these claims each add their own limitations which, it is submitted, render them patentable in their own right.

Applicants have reviewed the grounds for rejection of these claims as stated by the Examiner and respectfully do not agree with the positions taken. Nevertheless Applicants do not believe it necessary to discuss their views on these claims further, since claim 1 is believed patentable as set forth above. Applicants respectfully reserve the right to present their further points regarding these claims should it become necessary in the future.

Accordingly, claims 2, 4, 8-10 and 12 are believed to be patentable.

Claim 4 also has been amended to more particularly point out an aspect of the invention.

**C. Rejected Claims 5-7, 11 and 13-16**

The Examiner rejected claims 5-7, 11 and 13-16 under 35 U.S.C. §103(a) as being obvious over Kawano.

Claims 6-7, 11 and 13-16 all depend ultimately from independent claim 1 and, as with the other dependent claims, are believed to be patentable for at least the reasons set forth above with respect to independent claim 1. In addition, these claims each add their own limitations which, it is submitted, render them patentable in their own right. Applicants again respectfully do not agree with the positions taken and do not acquiesce in them, but do not believe it necessary to discuss their views on these claims further at this time. As with the other dependent claims, Applicants respectfully reserve the right to present their further points regarding these claims should it become necessary in the future.

Accordingly, claims 6-7, 11 and 13-16 are believed to be patentable.

Claim 5 has been canceled.

**D. Objected Claim 3**

The Examiner has objected to dependent claim 3 as being dependent upon a rejected base claim, but indicated that this claim would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

This has been done.

Accordingly, claim 3 is now believed to be patentable.

**E. Allowed Claims 17-30**

The Examiner is thanked for the allowance of claims 17-30.

**II. OTHER MATTERS AND CONCLUSION**

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-0869 (GEMF 2056-1) for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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